

What is claimed is:

1. A valve assembly for a washer system, the valve assembly comprising:

a housing that includes:

an inlet opening, from which washer fluid is inputted into the housing;

at least one outlet opening, from which the washer fluid is outputted from the housing; and

a fluid passage that communicates between the inlet opening and the at least one outlet opening;

a check valve that is arranged in the fluid passage of the housing, wherein the check valve permits forward flow of the washer fluid in a first direction from the inlet opening toward the at least one outlet opening and blocks backflow of the washer fluid in a second direction opposite from the first direction; and

a filter that is arranged in the fluid passage of the housing between the inlet opening and the check valve to filter the washer fluid.

2. The valve assembly according to claim 1, wherein the housing is a nozzle body of a washer nozzle of the washer system.

3. The valve assembly according to claim 2, wherein:

the nozzle body includes a first body part and a second body part, which are connected together;

the first body part includes the inlet opening and a first part of the fluid passage;

the second body part includes the at least one outlet opening and a second part of the fluid passage; and

each of the at least one outlet opening is a discharge opening that discharges the washer fluid.

4. The valve assembly according to claim 2, wherein:
the check valve is provided in the second body part; and
the filter is provided in the first body part.

5. The valve assembly according to claim 2, wherein:
the nozzle body includes a valve seat that is provided in the fluid passage and protrudes in a direction away from the filter toward the check valve;

the check valve is seated against the valve seat when the check valve blocks the backflow of the washer fluid in the second direction; and

the check valve is lifted away from the valve seat when the check valve permits the forward flow of the washer fluid in the first direction.

6. The valve assembly according to claim 3, wherein the check valve includes:

an anchoring portion that is formed into an annular shape and is securely clamped between the first body part and the second body part to seal a connection between the first body part and

the second body part;

at least one connector that extends radially inward from the anchoring portion;

a valve body that is located radially inward of the anchoring portion and is connected to the at least one connector, wherein:

the valve body closes a communication opening, which is formed between the first part of the fluid passage and the second part of the fluid passage, when the check valve blocks the backflow of the washer fluid in the second direction; and

the valve body is pushed by the washer fluid and opens the communication opening when the check valve permits the forward flow of the washer fluid in the first direction; and

at least one flow passage that extends through the check valve, wherein each flow passage is radially positioned between the anchoring portion and the valve body.

7. The valve assembly according to claim 2, further comprising a spring that is provided in the fluid passage and urges the check valve toward the inlet opening.

8. The valve assembly according to claim 6, wherein:

the second body part includes at least one engaging portion; and

the first body part includes at least one engaging portion, which is engaged with the at least one engaging portion of the second body part to connect the second body part and the first

body part together and thereby to resiliently deform and to clamp the anchoring portion between the second body part and the first body part.

9. The valve assembly according to claim 1, wherein the check valve is integrally made of a resilient material.

10. The valve assembly according to claim 1, wherein the filter is formed integrally with a portion of the housing.

11. The valve assembly according to claim 1, wherein:
the housing is a joint body of a branched joint of the washer system, wherein the branched joint connects between an inlet-side hose and at least one outlet-side hose of the washer system;
the inlet opening of the joint body is engaged with the inlet-side hose; and
the at least one outlet opening of the joint body is engaged with the at least one outlet-side hose.

12. The valve assembly according to claim 11, wherein:
the joint body includes a first body part and a second body part, which are connected together;
the first body part includes the inlet opening and a first part of the fluid passage; and
the second body part includes the at least one outlet opening and a second part of the fluid passage.

13. The valve assembly according to claim 12, wherein:
the check valve is provided in the second body part; and
the filter is provided in the first body part.

14. The valve assembly according to claim 11, wherein:
the at least one outlet opening of the joint body includes
a plurality of outlet openings; and
the inlet opening of the joint body is communicated with
each outlet opening through the filter and the check valve.

15. The valve assembly according to claim 12, wherein the check
valve includes:

an anchoring portion that is formed into an annular shape
and is securely clamped between the first body part and the second
body part to seal a connection between the first body part and
the second body part;

at least one connector that extends radially inward from
the anchoring portion;

a valve body that is located radially inward of the
anchoring portion and is connected to the at least one connector,
wherein:

the valve body closes a communication opening, which
is formed between the first part of the fluid passage and the
second part of the fluid passage, when the check valve blocks the
backflow of the washer fluid in the second direction; and

the valve body is pushed by the washer fluid and opens
the communication opening when the check valve permits the

forward flow of the washer fluid in the first direction; and

at least one flow passage that extends through the check valve, wherein each flow passage is radially positioned between the anchoring portion and the valve body.

16. The valve assembly according to claim 15, wherein:

the second body part includes at least one engaging portion; and

the first body part includes at least one engaging portion, which is engaged with the at least one engaging portion of the second body part to connect the second body part and the first body part together and thereby to resiliently deform and to clamp the anchoring portion between the second body part and the first body part.